

What is claimed is:

1. A photodetector comprising:
an operational amplifier;

a photodiode connected to an inverting terminal of the operational amplifier for outputting a signal corresponding to quantity of light to be detected;

a plurality of feedback resistors differentiated in each resistance value;

an analog switch for selectively connecting input terminals thereof to which one ends of the feedback resistors are connected to an output terminal of the operational amplifier except the feedback resistor having the maximum resistance value, or connecting the input terminal thereof which is rendered in a non-connection state to the output terminal of the operational amplifier instead of the feedback resistor having the maximum resistance value;

wherein the feedback resistor having the maximum resistance value is connected to the output terminal of the operational amplifier at its one end and to the inverting input terminal of the operational amplifier at its other end; and

wherein the other ends of the other feedback resistors are connected to the inverting input terminal of the operational amplifier.

2. The photodetector according to Claim 1, wherein the other end of the feedback resistor having high resistance value of the other feedback resistors is serially connected to the feedback resistor having a small resistance value.

3. The photodetector according to Claim 1 or 2, further comprising a second analog switch for selecting the output terminal of the operational amplifier to externally output as an output voltage in the case where the analog switch selects the input terminal thereof which is rendered in a non-connection state instead of one end of the feedback resistor having the maximum resistance value, or the input terminals thereof to which one ends of the serially connected feedback resistors are connected, thereby

connecting the selected input terminals to the output terminal of the operational amplifier and for selecting one ends of the feedback resistors to externally output as the output voltage in the same manner as the analog switch selects in the case where the analog switch selects the input terminal which is rendered in a non-connection state, or the input terminals thereof to which one ends of the feedback resistor are connected except the input terminals thereof to which one ends of the serially connected feedback resistors are connected.

4. The photodetector according to Claim 3, further comprising an additional feedback resistor connected to the output terminal of the operational amplifier at its one end and to the inverting input terminal of the operational amplifier at its other end and having a resistance value which is higher than the feedback resistor having the maximum resistance value; and

a mechanical relay for connecting/disconnecting the other ends of the feedback resistors other than the additional feedback resistor to and from the inverting input terminal of the operational amplifier.

5. The photodetector according to Claim 4, further comprising a second mechanical relay for grounding the other ends of the feedback resistors other than the additional feedback resistor in the case where the other ends of the feedback resistors other than the additional feedback resistor is disconnected from the inverting input terminal of the operational amplifier.